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Amendment to the Claims (Clean Copy)

1. (Currently Amended) A separating machine for separating a thinned semiconductor substrate from a holding substrate after the thinned semiconductor substrate has been bonded to the holding substrate with a thermoplastic resin and a back surface treatment including the thinning of the semiconductor substrate has been carried out,

the separating machine comprises a pair of vacuum adsorption heads for adsorbing the holding substrate-bonded thinned semiconductor substrate from a holding substrate side and from a thinned semiconductor substrate side, respectively, wherein the thinned semiconductor substrate side is disposed opposite relative to the holding substrate side,

wherein at least one of the vacuum adsorption heads has a moving means for adsorbing and holding the holding substrate-bonded thinned semiconductor substrate in a predetermined position together with the other vacuum adsorption head, and at least one of the vacuum adsorption heads has a system for moving in a single swing direction to separate the holding substrate from the thinned semiconductor substrate.

2. (Currently Amended) A separating machine according to claim 1, wherein a system for making a separation starting point is provided at a single swing side of the vacuum adsorption head.

3. (Currently Amended) A separating machine according to claim 2, wherein the separation starting point is formed at a flat orienting portion.

4. (Currently Amended) A separating machine according to claim 2, wherein the system for making a separation starting point includes a structure having a knife edge.

5. (Currently Amended) A separating machine according to claim 2, wherein the system for making a separation starting point is composed of a gentle curved surface at at least the single swing side of at least one of the vacuum adsorption heads, and the curved surface adsorbs the holding substrate-attached thinned semiconductor substrate to generate a bending stress therein.

6-8. (Cancelled)

9. (Currently Amended) A separating machine according to claim 3, wherein the system for making a separation starting point includes a structure having a knife edge.

10. (New) A separating machine for separating a thinned semiconductor substrate from a holding substrate after the substrates have been bonded with a thermoplastic resin and a back surface treatment including thinning of the semiconductor substrate has been carried out, said separating machine comprising:

a first vacuum adsorption head for adsorbing and holding the bonded substrates; and

a second vacuum adsorption head for adsorbing and holding the bonded substrates in cooperation with said first vacuum head,

wherein at least one of said first and second vacuum adsorption heads is movable toward and away from a bonded substrate holding position;

wherein at least one of said first and second vacuum adsorption heads is a pivotable vacuum adsorption head and includes a mechanism for pivoting a side of said pivotal vacuum adsorption head away from the bonded substrate holding position to separate the holding substrate from the thinned semiconductor substrate.

11. (New) A separating machine according to claim 10, further comprising a device for initiating a separation starting point is provided at the movable side of said pivotal vacuum adsorption head.

12. (New) A separating machine according to claim 11, wherein at least one of the first and second vacuum adsorption heads includes a flat orienting portion.

13. (New) A separating machine according to claim 10, further comprising a knife member having a knife edge for initiating a separation starting point, wherein said knife member is provided at the movable side of said pivotal vacuum adsorption head.

14. (New) A separating machine according to claim 10, wherein at least one of the first and second vacuum adsorption heads includes a convex curved surface for contacting the bonded substrates to generate a bending stress therein.

15. (New) A separating machine for separating a thinned semiconductor substrate from a holding substrate after the substrates have been bonded with a thermoplastic resin and a back surface treatment including thinning of the semiconductor substrate has been carried out, said separating machine comprising:

an upper adsorption board for adsorbing and holding the bonded substrates;

an upper moving mechanism for moving said upper adsorption board toward and away from a bonded substrate holding position;

a lower adsorption board for adsorbing and holding the bonded substrates in cooperation said upper adsorption board, said lower adsorption board being supported so as to be pivotal about one side thereof ; and

a lower moving mechanism for moving said lower adsorption board so as to pivot said lower adsorption board in a single swing direction,

wherein said upper and lower adsorption boards are capable of adsorbing and holding the bonded substrates in the bonded substrate holding position, and then moving away from the bonded substrate holding position to separate the holding substrate from the thinned semiconductor substrate.

16.(New) A separating machine according to claim 10, wherein said upper moving mechanism is operable to move the bonded substrate to a position over said lower adsorption board, and then a position adjusting operation is performed.

17.(New) A separating machine according to claim 10, wherein said upper adsorption board is connected to an upper lever arm which is pivotally connected to a

movable board, wherein said separating machine further comprises an upper mechanism for pivoting said upper lever arm in a single swing direction.

18.(New) A separating machine according to claim 10, wherein said an upper moving mechanism is connected to said movable board.

19.(New) A separating machine according to claim 10, further comprising a device for initiating a separation between the holding substrate and the thinned semiconductor substrate.

20.(New) A separating machine according to claim 19, wherein said separation initiating device comprises a knife structure.